

CLAIMS

We claim:

1. A method of reducing call-setup latency at a mobile station, the method
5 comprising:

receiving a request to change a mode of operation of the mobile station from a first mode
to a second mode; and

responsive to the request, the mobile station switching from operation at a first paging
slot cycle index to operation at a second paging slot cycle index.

10 2. The method of claim 1, wherein the first slot cycle index is slot cycle index 2, and
wherein the second slot cycle index is slot cycle index 0.

15 3. The method of claim 1, further comprising:
responsive to the request, the mobile station sending a signaling message via an air
interface to a base station controller, directing the base station controller to switch to operating at
the second paging slot cycle index as well,

whereby both the base station and the mobile station then operate at the second paging
slot cycle index.

20 4. The method of claim 3, wherein the first slot cycle index is slot cycle index 2, and
wherein the second slot cycle index is slot cycle index 0.

25 5. The method of claim 1, wherein the request comprises a request to switch from a
normal mode to a push-to-talk mode.

6. The method of claim 1, wherein the request comprises a request to switch from a
normal-paging mode to a fast-paging mode.

7. The method of claim 1, wherein the request comprises a request to switch from operation at slot index cycle 2 to operation at slot index cycle 0.

8. The method of claim 1, wherein the request comprises a request to switch from a current paging frequency to a higher paging frequency.

9. A mobile station comprising:
a processor;
data storage;
machine language instructions stored in the data storage and executable by the processor to carry out functions comprising:

receiving a user request to switch the mobile station from a first mode of operation to a second mode of operation; and

responsively switching the mobile station from operation at a first paging frequency to operation at a second paging frequency.

10. The mobile station of claim 9, wherein switching the mobile station from operation at a first paging frequency to operation at a second paging frequency comprises switching the mobile station from operation at slot cycle index 2 to operation at slot cycle index 0.

11. The mobile station of claim 9, wherein the functions further comprise:
responsive to the user request, sending a signaling message via an air interface to a base station controller, directing the base station controller to switch to operation at the second paging frequency as well,
whereby both the base station and the mobile station then operate at the second paging frequency.

12. The mobile station of claim 11, wherein:
operation at the first paging frequency comprises operation at slot cycle index 2; and
operation at the second paging frequency comprises operation at slot cycle index 0.

13. The mobile station of claim 9, wherein the user request comprises a request to switch the mobile station from a normal mode to a push-to-talk mode.

5 14. The mobile station of claim 9, wherein the user request comprises a request to switch from a normal-paging mode to a fast-paging mode.

15. The mobile station of claim 9, wherein the user request comprises a request to switch from operation at slot index cycle 2 to operation at slot index cycle 0.

10 16. The mobile station of claim 9, wherein the user request comprises a request to switch from a current paging frequency to a higher paging frequency.

15 17. In a wireless communication system in which a plurality of mobile stations communicate via radio access networks, a method comprising:

selectively switching a subset of the mobile stations to operate at a higher paging frequency than others, so as to reduce setup time for establishing radio link connectivity with the mobile stations of the subset.